STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
Mining and Minerals Division
1220 St. Francis St.
Santa Fe, New Mexico 87505
Telephone: (505) 476-3400

MINING INSPECTION REPORT

Name of Operator:	United Nuclear Corporation (UNC)
Name of Mine:	Anne-Lee and John-Bill Mines
Address:	P.O. Box 3077, Gallup, NM 87305
Permit Number:	MK027PR and MK028PR
Commodity:	Prior Reclamation Uranium Sites **X SURFACE** **__UNDERGROUND**
Date of Inspection:	11-15-2007
Time of On-Site Inspection:	10:30 ~15:30
Weather Conditions:	~55° to 65°F, cool/mild, dry, mostly clear, breezy
Purpose of Inspection:	Re-Vegetation Success Monitoring & Prior Reclamation Inspection
Lead Inspector:	Holland Shepherd – MMD
Present During Inspection:	MMD: Holland Shepherd, James Hollen, Susan Lucas-Kamat; UNC: Larry Bush + one field staff
ENFORCEMENT ACTION TAKEN:	**None**
NOTICE OF VIOLATION: #_____	**YES:___ NO:__X**
CESSATION ORDER:	**YES:___ NO:__X**
Time: On-Site:__5__	**Permit Review:__2___ Travel:__6___ Report Writing:__2**
TOTAL INSPECTION TIME:	**__15___HOURS**

NOTES:

Both of the reclaimed uranium mine sites, Anne-Lee and John-Bill, are situated within the Ambrosia Lake Mining District, located approx. 20 miles north-northwest of Grants off State Rd. 509 in McKinley County, New Mexico.

A series of locked gates require access permission obtained through UNC. A high clearance, 4WD vehicle is required when surface conditions are wet or snow covered.

Anne-Lee Mine: (T 14 N, R 9 W, Sec. 27, N.M.P.M.)

John-Bill Mine: (T 14 N, R 9 W, Sec. 34, N.M.P.M.)

U.S.G.S. 7.5' Series Quadrangle Map: *Ambrosia Lake*

INSPECTION REPORT
11-15-07
Anne-Lee Mine – MK027PR
John-Bill Mine – MK028PR

PERMIT UPDATE:

July 16, 1993, June 21 & 29, 1994 – UNC submits information to MMD identifying mining operations pursuant to requirements of Section 5D of the 1993 NM Mining Act.

August 25, 1994 – MMD advises UNC that a deadline for filing site assessments of identified sites had passed on June 30, 1994 and that in order for UNC to come into compliance with the NMMA, UNC would be required to either complete site assessments for each of the identified properties, or provide written documentation that UNC is not the responsible party for these sites, or submit application to MMD for consideration of prior reclamation.

August 26, 1994 – UNC submits application to MMD requesting inspection of the Anne-Lee and John-Bill Sites for release from the requirements of the NMMA for Prior Reclamation completed.

October 19, 1994 – UNC states in a letter to MMD that the identified sites should be considered as abandoned mines and therefore, are not subject to the Act, and while they do not object to evaluating the identified sites for prior reclamation, UNC states further that, they believe that they have no obligation to comply with permitting or any other regulatory requirements of the NMMA for the identified mines.

November 15, 1994 – MMD states that while it disagrees with UNC's determination that the identified properties should be excluded from the Act, MMD approves UNC request to evaluate the Anne-Lee and John-Bill sites for Prior Reclamation completed.

August 3, 1995 – MMD Report on July 13, 1995 Anne-Lee and John-Bill Site Inspections.

September 29,1995 – MMD determines that Prior Reclamation measures completed at the Anne-Lee and John-Bill sites do not satisfy the requirements of the NMMA. MMD informs UNC that it may either apply for a Variance from the requirements of the NMMA, or submit to MMD, a permit application and Closeout Plan for an Existing Mining Operation.

November 29, 1995 – UNC petitions the MMD determination and appeals to the NM Mining Commission.

April 29, 1997 – The NM Mining Commission dismisses UNC's appeal without prejudice.

May 29, 1997 – UNC advises the Commission it would dismiss the 1995 petition and seek Variance from MMD.

June 3, 1997 - UNC applied to MMD for Variance from Prior Reclamation requirements and extend compliance period by two growing seasons before MMD determination of compliance.

MMD granted UNC a variance through CY 1998 to extend compliance period with the NMMA.

May 25,1999 – MMD determines that, through results of site inspections completed in Fall 1998, the Anne-Lee and John-Bill Sites continue to fail in meeting prior reclamation criteria for release

from NMMA and must be permitted as an Existing Mining Operation.

MMD extends UNC's 1998 Variance through CY 2000.

UNC's Variance expired in 2000 and since, UNC has failed to permit the Anne-Lee and John Bill Sites which have been determined by MMD to qualify as existing mines under NMSA 1978, Section 69-36-3 (E).

2007 – MMD conducts a review of previously active uranium mine sites in New Mexico, including UNC's Anne-Lee and John-Bill Sites.

June 15, 2007 – MMD informs UNC that the permitting compliance issues must be finally resolved either by conducting current site inspections to determine compliance with the Act, or by MMD filing motion with the NM Mining Commission requesting dismissal of UNC's appeal for non-prosecution.

July 10, 2007 – UNC agrees to allow MMD access to the Anne-Lee and John-Bill sites for inspection.

November 15, 2007 – Site Inspections completed by MMD at the Anne-Lee and John-Bill sites. Evaluation of data is ongoing and compliance determinations are pending from MMD.

INSPECTION NARRATIVE:

The site inspections were arranged by MMD through Larry Bush of UNC. MMD personnel met Larry Bush and one other UNC field staffer in Grants, and then followed Larry to the Ambrosia Lake District. In addition to observing the current status of each of the reclaimed sites for overall integrity and erosional stability, the purpose of the site inspections was to conduct vegetation monitoring and sampling transects to observe progress and determine success of ongoing re-vegetation efforts carried out at each site. Initial site re-vegetation efforts have failed to meet success criteria for release under prior reclamation and results from vegetative sampling conducted by MMD during the last site inspections completed in summer of 1995 indicated that, neither the Anne Lee site, nor the John Bill site, had reached required plant density or species diversity for release from the NMMA. The surfaces of both sites were highly erodible and very dry and according to Larry, the general area had not received any significant or measurable precipitation in over two months.

The Anne-Lee Mine consists of a reclaimed, concrete-plugged and buried mine shaft feature situated within an area approximately 1/10 acre in size. While the immediate area of the reclaimed shaft was re-seeded in 1994, prior to that, the surrounding area associated with the Anne-Lee Mine was reclaimed in the early 90's as part of the UMTRCA Title 1 reclamation completed by the DOE. The feature consists of a roughly square shaped, mound-like expression, rising approximately 20' above the surrounding land surface. A sealed, underground mine vent shaft feature and a groundwater monitoring well are also present in the immediate area and GPS locations of these features were acquired. Moderately steep outslopes extend some 40' to 60' outward from a slightly depressed and undulating, but generally flat, top-surface. Only the top surface of the feature is fenced to exclude cattle from grazing in the area and to protect the re-vegetation and reclamation aspects of the site from erosion issues and unauthorized grazing. Cattle activity along the unfenced outslopes of the feature have impacted existing vegetation and disturbed the surface soils creating potential erosion problems although no immediate erosion issues were observed. Although Larry Bush indicated that the shaft has settled and subsided on

numerous occasions over the years, it appeared stable during the inspection and Larry indicated that it had been stable for several years now. Larry mentioned that some of the reasons for such difficulty in attaining re-vegetation success standards at this site were partially due to settling within the buried shaft feature causing subsidence and collapse at the surface. The subsidence activity would require UNC to import fill to cover and re-contour the collapsed areas to original conditions. According to Larry, each collapse would drastically disturb and re-work the existing surface soils and any established vegetation growing on the site and setback UNC's reclamation and re-vegetation efforts.

Bioturbation through rodent activity within surface soils is also abundantly evident throughout the top surface and outslopes of the mound feature and has also contributed to the overall difficulties in establishing well-stabilized surfaces necessary for successful re-vegetation of the site. The heaviest biorturbation was observed along the northwest corner of the mound feature where vegetation was sparse and rodents have reworked surface soils and redistributed subsurface soils onto the surface of the mound feature by tunneling and excavating in this area. At this location (NW corner) gamma radiation levels were detected as being slightly elevated and above normal background gamma radiation levels, probably associated with this bioturbation activity. Background gamma radiation levels measured randomly throughout the surface of the Anne-Lee Site ranged from 6~11 μR/hr.

Larry indicated that prior reclamation work completed in the area by the DOE, scraped and removed most of the original post-mining topsoil surfaces of the surrounding area. He said that during active underground mining, no mined material had been dumped or stockpiled at the Anne-Lee location and the only purpose for this site was for use as an ore load-out shaft associated with the underground Sandstone Mine. Uranium ore was hoisted from the mine to the surface at this location using a head-frame hoist (removed). Ore was then hauled away from this location in haul trucks.

Two 50' vegetation transect surveys were completed in one-foot sampling intervals across the top surface of the mound feature from corner to corner. GPS coordinates were acquired at each of the locations designating the point of beginning and ending for both transects. The occurrence of grasses, forbs and shrub species, as well as, bare-ground and surface plant litter were recorded at each one-foot interval of the taped transect. Vegetation is mostly dormant, very sparsely distributed throughout the site and consists predominantly of Russian thistle and snakeweed. Also observed were four wing saltbrush, rubber rabbitbush, purple aster, alkali sacaton, western wheatgrass, and Indian rice grass. Larry indicated during the inspection that UNC would voluntarily re-seed the Anne-Lee reclamation area and that if MMD could provide him with an approved seed-mix and application rates, UNC would attempt to re-seed the reclamation area of the Anne-Lee in spring 2008.

The John-Bill Mine consists of reclaimed area of approximately 4 acres in size, and like the Anne-Lee site, is also a plugged and buried mineshaft feature initially reclaimed and seeded in 1994. Aside from an abandoned, wooden-framed electrical substation structure existing on site, no open shaft or any other mine related features are visible and the area is flat to gently undulating. Larry remarked that because of the failure of several previous re-vegetation attempts, the John-Bill site had been re-seeded 3 times subsequent to their initial reclamation efforts. A division is visible in the immediate vicinity surrounding the site clearly delineating the existing dominant vegetation (Russian thistle) from the vegetation present within the reclaimed area of the John-Bill site. Although the reclamation area of the John-Bill is also dominated by invasive Russian thistle and snakeweed, also observed within the reclamation area were well-established stands of native vegetation. As observed on the Anne-Lee site, a similar vegetation community exists at the John-Bill site. Notably different at the John-Bill, was the abundance of winterfat within the vegetative

community.

GPS coordinates were acquired at each of the locations designating the point of beginning and ending for both transects completed on the John-Bill site. The vegetation transect surveys completed at the John-Bill site were randomly generated and established by utilizing the same sampling grid and methodologies established during previous vegetation transect surveys completed in October 1998.

Because no vegetation reference area exists for either the Anne-Lee or the John-Bill sites, by which to judge whether the sites allow for designation as a self-sustaining ecosystem pursuant to the Act, the reference standard used for comparison by MMD in this case, is the NRCS Range Site Description for this area designated by the NRCS as WP-2, Sandy. Further statistical analyses using the quantitative results obtained from each vegetation transect survey completed on both sites will be required to determine whether the average percent cover values for each site have been attained and meet re-vegetation success criteria for release from the Act.

Upon completion of the vegetation transect surveys of the John-Bill; MMD concluded the site inspection by briefly discussing with Larry, the path forward. MMD indicated that based on lack of vegetation and overall poor field conditions observed at the Anne-Lee reclamation, release based on prior reclamation for this site was unlikely and that at minimum, the site would need re-seeding. MMD indicated that because the John-Bill site exhibited more successfully established re-vegetation conditions, results of pending statistical analysis of the transect data would have to be completed prior to MMD's determination of compliance with the Act.

ACTION ITEMS:

Complete statistical analysis of data obtained from vegetation transect surveys.

Recommend a seed-mix suitable for UNC to utilize in future re-vegetation efforts at the Anne-Lee Site.

Determine compliance with the Act.

PHOTOS:

Photos taken during this field inspection can be found archived at the following location: L:\MARP\PriorReclamation

MAINTENANCE ITEMS:

Recommend that UNC extend fencing to include outslopes of the mound feature and exclude cattle from all reclaimed areas at the Anne-Lee Site. Fencing should be in accordance with NMDG&F Fencing Guidelines.

Recommend that UNC reseed the entire Anne-Lee reclamation area. The area should be mulched and re-seeded by hand broadcasting and raking an approved seed-mix into the surface. A recommended seed mix consisting of grasses and forbs, as well as, the suggested rates of application are specified below in lbs. pure live seed (PLS) per acre (lbs./ac.):

Blue Grama – Hatchita 1.0
Crested Wheat Grass 5.0
Western Wheat Grass 2.5

Indian Rice Grass 1.0
Alkali Sacaton .5
Sand Dropseed 1.5
Winterfat ??

ENFORCEMENT ACTIONS TAKEN OR TO BE CONSIDERED:

Utilize results of the November 2007 Site Inspections to determine compliance or necessary steps for UNC to complete in order to obtain compliance with the Act.

UNC should provide MMD with a plan for moving forward in resolving compliance issues related to these sites pursuant to the Act, and provide a reclamation plan that includes a schedule of proposed activities.

INSPECTOR'S SIGNATURE:_____**DATE:** _____